A.D. 1811 . . . . N° 3402.

SPECIFICATION

OF

ROBERT SALMON.

TRUSSES.

LONDON:
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A.D. 1811 . . . . N° 3402.

Trusses.

SALMON'S SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, Robert Salmon, of Woburn, in the County of Bedford, Surveyor, send greeting.

WHEREAS His most Excellent Majesty King George the Third did, by His Letters Patent under the Great Seal of the United Kingdom of Great Britain and Ireland, bearing date at Westminster, the Fourth day of March, in the fifty-first year of His reign, give and grant unto me, the said Robert Salmon, my ex̃ors, adm̃ors, and assigns, His especial licence, full power, sole privilege and authority, that I, the said Robert Salmon, my ex̃ors, adm̃ors, and assigns, should and lawfully might, during the term of years therein expressed, make, use, exercise, and vend, within England, Wales, and the Town of Berwick-upon-Tweed, my Invention of "Certain Improvements for the Relief of Hernia, which Instruments I call Salmon's New Royal Patent Artificial Abdomens;" in which said Letters Patent there is contained a proviso obliging me, the said Robert Salmon, by an instrument in writing under my hand and seal, to cause a particular description of the nature of my said Invention, and in what manner the same is to be performed, to be enrolled in His Majesty's High Court of Chancery within two calendar months after the date of the said recited Letters Patent, as in and by the same, relation being thereunto had, may more fully and at large appear.

NOW KNOW YE, that in compliance with the said proviso, I, the said Robert Salmon, do hereby declare that my said Invention comprises as follows:—

First, the application of a new principle to be applied in the retaining of inguinal and umbilical hernia.

Secondly, the formation of certain plates, pads, or cushions to be impelled on the human body, embracing this new principle, which said plates, pads, or cushions, however impelled, constitute a principal part of my Invention.

Thirdly, the formation, combination, and application of different sorts of springs, and other requisite parts, to produce the required effect, the application of which principle, or plates, pads, or cushions, or formation or combination of the springs, or all or any of the parts thereof, are my Invention, and constitute my New Royal Patent Artificial Abdomen.

Previously to explaining the principle of my Invention, I shall first premise that the great object in relieving hernia is to do it in such manner that the spermatic vessels be not injured, and in such way that the muscles may be so treated as to be most likely to recover their lost tone and strength, and thereby, if possible, produce the radical cure. Contrary to this end, in all trusses hitherto in use for inguinal hernia, the pad or cushion opposed to the abdominal aperture is of convex shape, and somewhat spherical or rotund, and these are applied directly with their apex resting on and in the aperture, and on the spermatic vessels proceeding therefrom. Now, in a rational way of considering the complaint, and this part of the human body, this shape of the pad and way of application is inconsistent with the requisite effect; for it is manifest that every convex surface impelled on to a soft yielding body must in some degree act as a wedge or plug tending to distend and separate the parts of such body. Again, it is equally manifest that if the rotundity of the pad applied to inguinal hernia be more curved than the curvature of the upper edge of the os-pubis, then the inferior part of the apex, resting directly on the spermatic vessels, will press most intensely these vessels on to the os-pubis, thereby unsteadily oppressing and distending these vessels and the surrounding muscles, and frequently occasioning more mischief than the application is intended to relieve. To remedy these imperfections and facilitate the probability of radical cure, my new principle does apply; and altho' I do apply that principle to all sorts of hernia, yet it is most easy of demonstration in inguinal hernia, to which only I shall refer; claiming, nevertheless, the exclusive right of applying it to all the varieties in the complaint.

First, then, my new principal is to relieve every sort of hernia without any direct violence or distention of the herniary apperture, and without unsteadily resting on or oppressing the sphermatic vessels in inguinal hernia; but contrarywise so to apply machinic force as to close and support the aperture and its contents, and at same time and collect, retain steadily, and shield from any violent pressure the vessels themselves.

Secondly, in the formation of the plate, pad, or cushions, embracing my new principle, many trifling variations in shape may be made, and the different sizes of persons require so many different sizes of plates as to render it impossible to specify all; I nevertheless claim all the variations, acting according to the before-described principles, and following description and figures hereto annexed.

Fig. 1, front view of the plate of an artificial abdomen as applied to the herniary apperture on the right side of a common-sized person. A, the inner side of the right thigh projecting forward from the flexible part of the abdomen; B, the superior or inner herniary aperture entering into the cavity of the abdomen; C, the direction of the herniary canal and spermatic vessels as they descend towards the scrotum; D, lower part of the plate resting on the lower intersection of the abdominal muscles, and laying a little over the upper edge of the os-pubis; E, upper part of the plate resting on the flexible part of the abdomen; F, connecting or middle part of the plate resting on the interior edge of the apperture; in the centre of this the impelling force is applied and connected by joint, so as to leave the plate at liberty to adjest itself to the changes in the position of the body; G, dotted line, shewing the upper edge of the os-pubis; H, flexible part of the abdomen. Fig. 2, vertical section of the same, in which the same letters explain the same parts. Fig. 3, horizontal section of the lower edge of the plate D, resting on the abdomen and os-pubis, and collecting, embracing, and protecting the muscles and spermatic vessels. Now having premised that all rotund or convex surfaces impelled on soft yielding bodies must, as a wedge, cause a separation of the parts by some reasoning applied to the before-described figures, it is manifest that the parts of the plate D and F will rest and press on the surrounding part of the abdominal ring, forming a ligature to prevent the descent of the hernia, and that some time collapsing and closing the muscles, and in directly stopping of the apperture; and as the lower part is hollowed out, as shewn in Fig. 3, the spermatic vessels will be retained and shielded from violent pressure against the os-pubis. For umbilical hernia the application of my principle is shewn and explained in Fig. 9.

Thirdly, in order to give the requisite pressure to my abdomens, I have constructed and do apply particular sorts of springs, plates, &c., as in Figs. 4, 6, 8, and 9, are fully described, and which said springs, plates, &c., I believe to be new, and claim the exclusive right of applying for herniary support.

And further, I do occasionally apply my patent self-adjusting truss springs for giving the requisite pressure, as shewn in Figs. 5 and 7, or I do directly apply the said springs as shewn in Fig. 10, and altho' the different parts of these instruments may require varying, according to the size of the persons and nature of the complaint, so as to render it impossible herein to describe every variation, and the different parts may be composed of different materials, yet I claim the right of making all the variations in size and combination of materials, the purport and nature of my Invention being as before and hereinafter is described and fully explained, references to the Figures herein-after shewn.

Fig. 4, a simple inguinal artificial abdomen. A, plate lined with a cushion to rest on the flexible part of the abdomen and give direction to the frame or carriage piece B; B, metal frame or carriage piece connected with and bearing at its upper and on the plate A, and by joint resting on the plate and cushion C; C, self-adjusting plate covered with soft materials to rest on the abdominal muscles; D, projecting horn-like spring, loosely connected by a screw and resting on the frame B; the extreme ends of this spring, when at liberty, spring forward from the front of the body and project therefrom like horns; E, straps of leather or other material connected with the springs; these, by tightening round the body, cause the pressure of the spring on B, from which it is transfered to the plate A and cushion C, the bearing on B being so regulated that the greatest part of the force is transferred to C, and thence on the abdominal ring.

Fig. 5, a simple inguinal artificial abdomen, with patent self-adjusting truss spring. A, B, C, the same as in Fig. 4; D, patent self-adjusting truss spring to fit round the body and communicate force instead of the projecting spring described in Fig. 4; E, back cushion and plate to rest on the os-sacram.

Fig. 6, a compound inguinal artificial abdomen with projecting spring. A, plate and cushion, as before; B, metal frame or carriage piece; C, two self-adjusting cushions, placed at such distance from each other as to rest on each abdominal ring; D, projecting spring to press on the frame B, as described in Fig. 4; E, straps to bring the spring to act as described in Fig. 4.

Fig. 7, a compound inguinal artificial abdomen with patent self-adjusting truss spring. A, B, C, the same as last above described; D, patent self-adjusting truss spring to give pressure on B; E, back cushion to rest on the os-sacram.

Fig. 8, simple umbilical artificial abdomen. A, plate and cushion to rest on the navel rupture; B, projecting spring resting on a round button in the centre of the plate A, and screwed thereto with a loose joint, so as to leave the plate at liberty to adjust itself on its bearing; C, straps round the body and draw in the springs, thereby given the requisite pressure on the plate A, and consequently on the navel.

Fig. 9, compound umbilical artificial abdomen. A, plate and cushion to rest on the navel; B, outer rim to rest on the surrounding part of the abdomen, connected by hinge with the plate A; C, metal bearers, one end connected and resting on the plate A, and the other end resting on the rim B; D, upper bearing, resting with its ends on C at such point that it communicates the greatest portion of its pressure on the plate A, and the remainder on the rim B; E, spring, as before; F, straps to go round the body, by tightening of which the spring is drawn to fit the body, and at same time to press on the upper bearer D, from whence the pressure is transferred to the under bearer C, and by them distributed between the plate A and outer rim B, thereby expending the force of the spring partly on the navel and partly on the surrounding part of the abdomen; by this distribution of the pressure securing the surrounding parts, as well as the navel, and clasping the abdomen of rotund persons so as to prevent the removal of the instrument, and the unpleasant sensation sometimes experienced by pressing the navel only.

Fig. 10, patent artificial abdominal plate, applied directly to my self-adjusting truss spring.

In witness whereof, I, the said Robert Salmon, have hereunto set my hand and seal, this Third day of May, in the year of our Lord One thousand eight hundred and eleven.

ROBERT SALMON. (L.S.)

AND BE IT REMEMBERED, that on the Third day of May, in the year of our Lord One thousand eight hundred and eleven, the aforesaid Robert Salmon came before our said Lord the King in His Chancery, and acknowledged the Specification aforesaid, and all and every thing therein contained and specified, in form above written. And also the Specification aforesaid was stampt according to the tenor of the Statute made for that purpose.

Inrolled the Third day of May, in the year of our Lord One thousand eight hundred and eleven.

STEPHEN.

LONDON:
Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1856.

A.D. 1811. Mar. 4. Nº 3402.
SALMON'S SPECIFICATION.

(1 SHEET.)

FIG. 1.

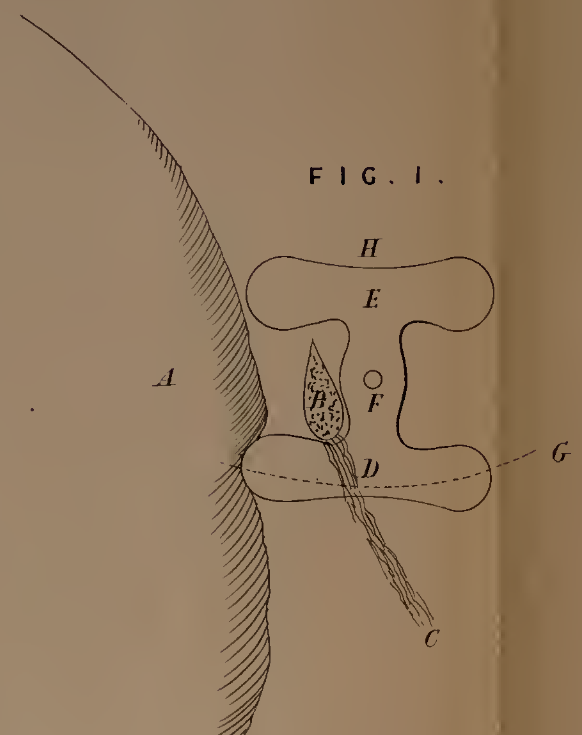


FIG. 2.

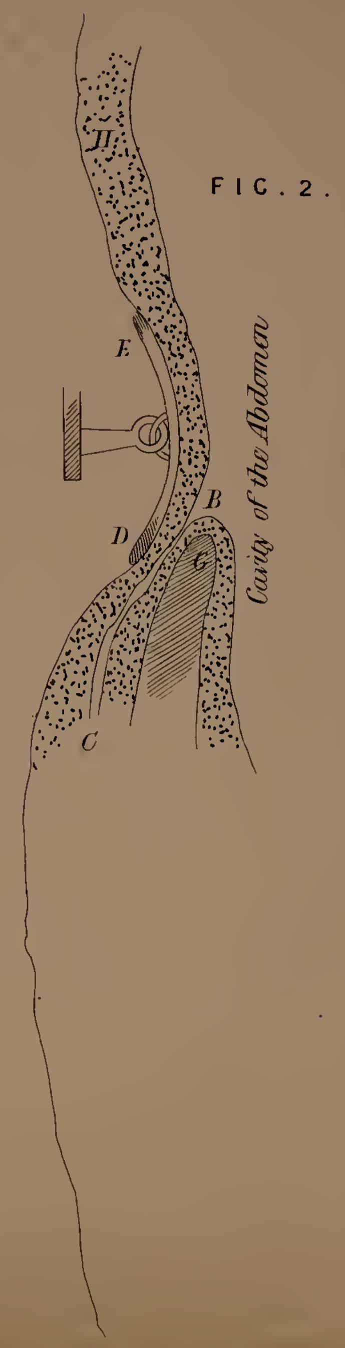


FIG. 3.

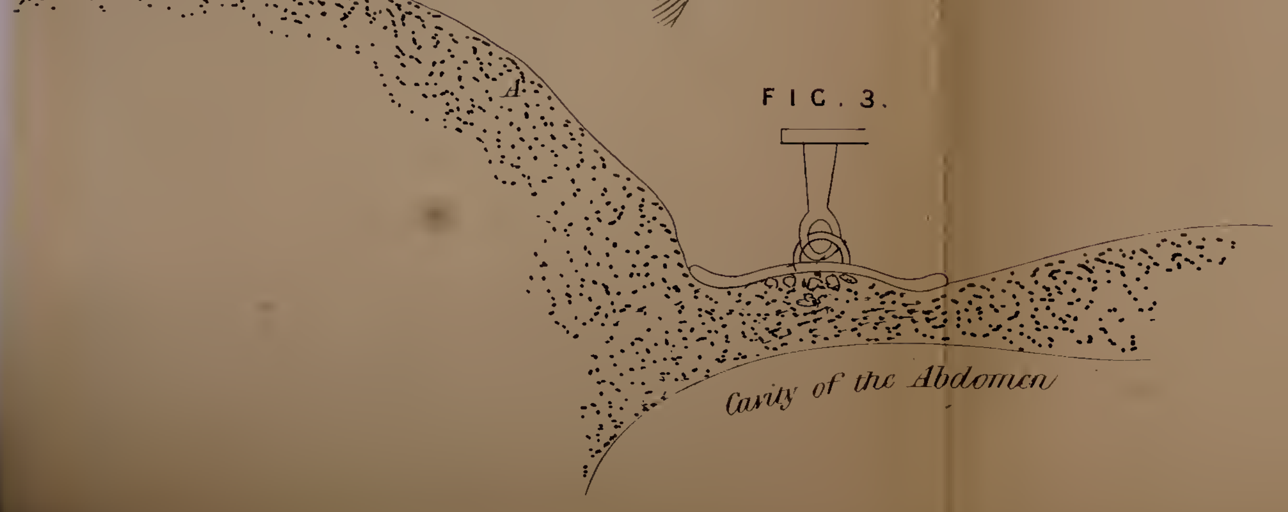


FIG. 4.

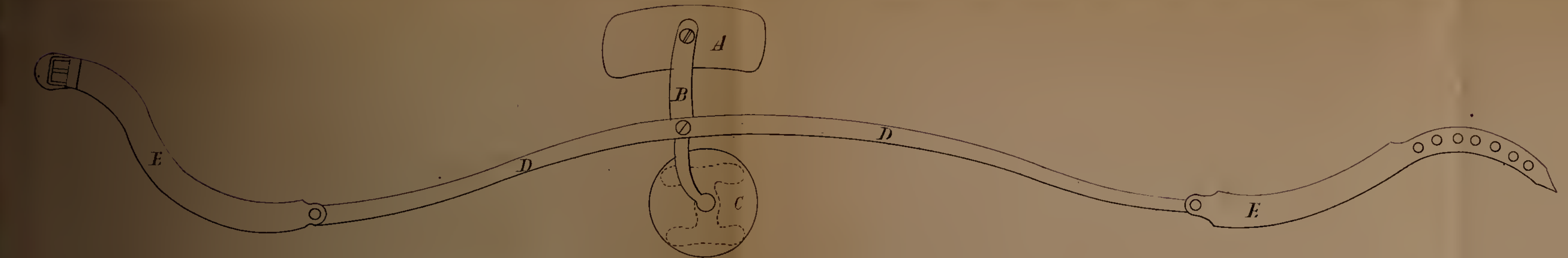


FIG. 5.

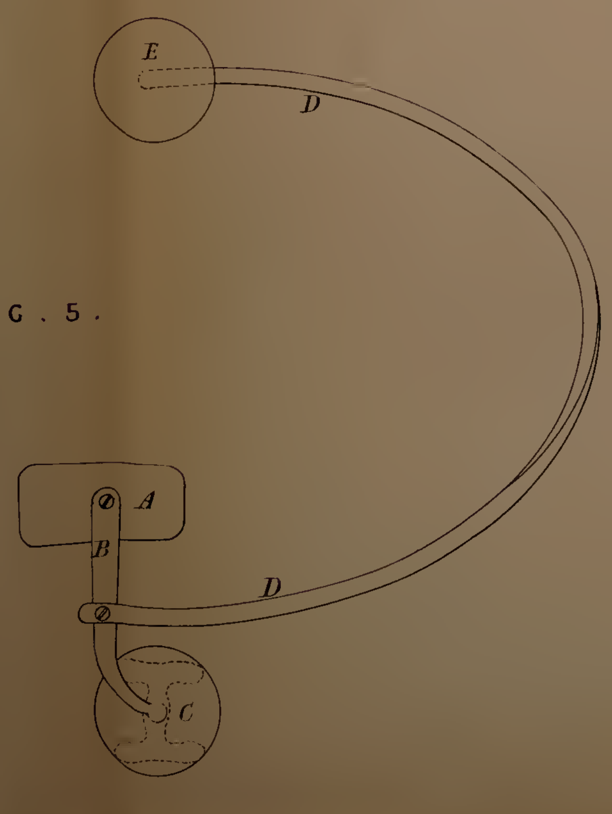


FIG. 6.

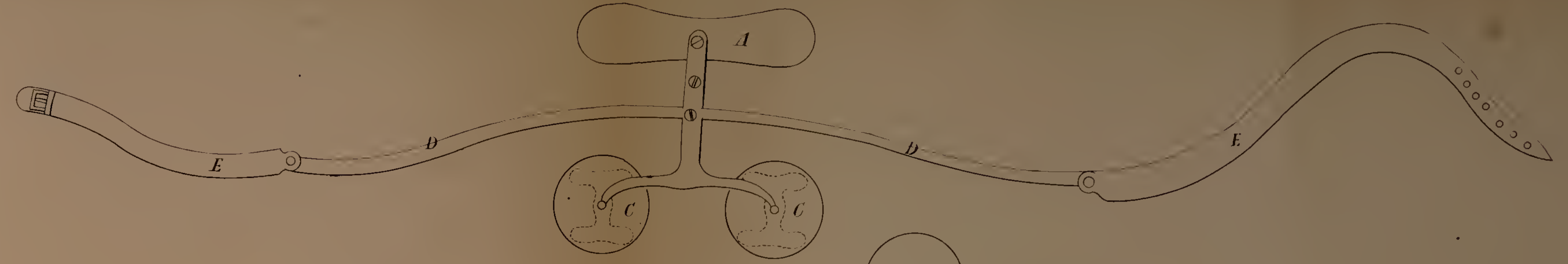


FIG. 7.

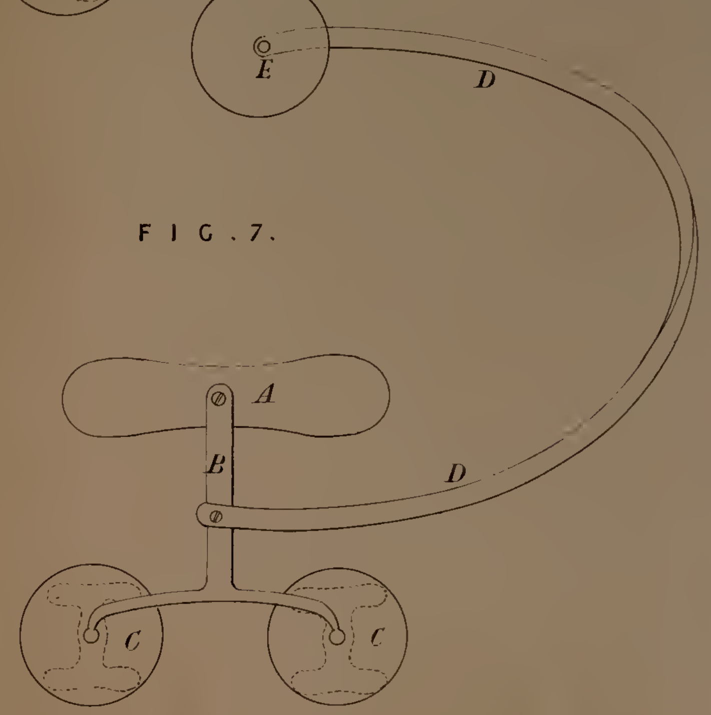


FIG. 8.

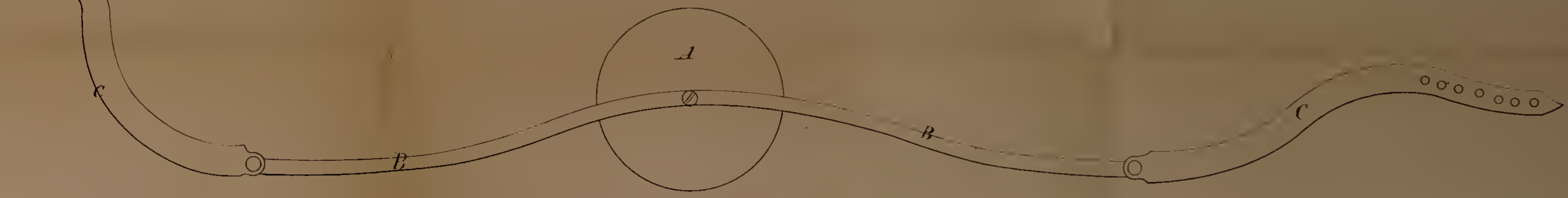


FIG. 9.

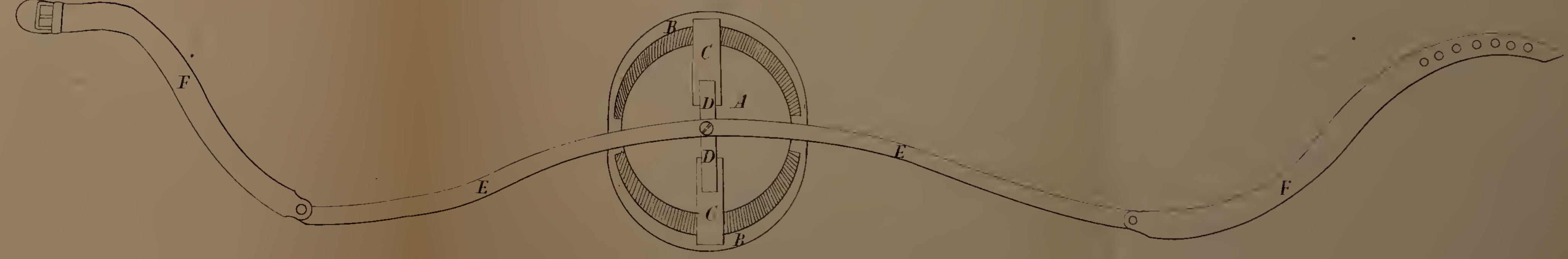
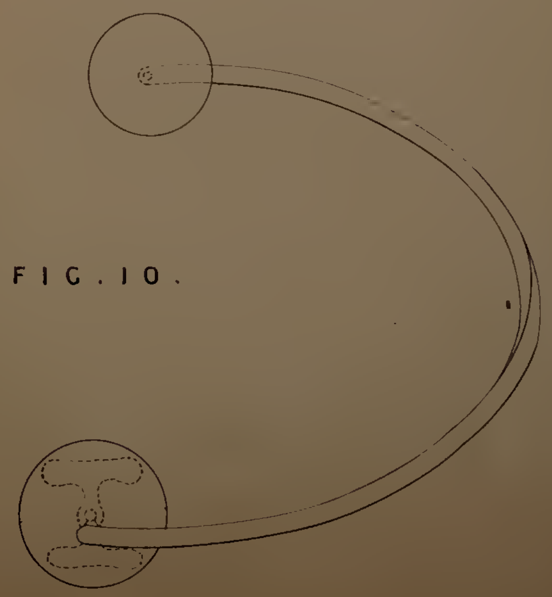


FIG. 10.



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